

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)

2. (Currently amended) An artificially designed antimicrobial peptide that does not occur naturally,

wherein the antimicrobial peptide includes a sequence composed of at least 6 contiguous amino acid residues selected from the group consisting of LMWWML, LMWWLL, CLFWLL, LIWYLL, VVYWLL, LYLGAV, LITSKM, FFYVMV and LLTAKM, as an amino acid sequence constituting laminin binding site (LBS), or said sequence with one or a plurality of amino acid residue(s) conservatively replaced, and

a partial sequence linked in tandem to the N-terminal and/or C-terminal of said sequence, where the partial sequence is a high basic partial sequence and more than half of amino acid residues constituting the partial sequence composed of 3 or more contiguous amino acid residues are lysine or arginine, and

wherein the total number of amino acid residues is 20 [[100]] or less.

3. (Cancelled)

4. (withdrawn, currently amended) The antimicrobial peptide according to claim 2 [[1,]] wherein the sequence composed of at least 6 contiguous amino acid residues is an amino acid sequence shown in any one of SEQ ID NOs: 1 - 9.

5. (Cancelled)

6. (Currently Amended) The antimicrobial peptide according to claim 2 including an amino acid sequence shown in any one of SEQ ID NOs: 10 - 30 or said sequence with one, two, or three a plurality of amino acid residue(s) conservatively replaced.

7. (Currently amended) The antimicrobial peptide according to claim 2 composed of an amino acid sequence shown in any one of SEQ ID NOs: 10 - 30 or said sequence with one, two, or three a plurality of amino acid residue(s) conservatively replaced.

8-9. (Cancelled)

10. (Withdrawn, currently amended) An artificially designed polynucleotide that does not occur naturally, comprising a nucleotide sequence encoding the antimicrobial peptide of claim 2, [[1,]] and/or a nucleotide sequence complementary to said sequence.

11. (Withdrawn) A method for producing an antimicrobial peptide, the method comprising:

 determining a sequence composed of at least 6 contiguous amino acid residues selected from an amino acid sequence constituting laminin binding site (LBS), or said sequence with one or a plurality of amino acid residue(s) conservatively replaced;

 designing a peptide chain including said determined sequence and an amino acid sequence that can express antimicrobial activity against at least one kind of bacteria or fungi; and

 synthesizing said designed peptide chain.

12. (Withdrawn) A method for producing an antimicrobial peptide, the method comprising:

 determining a sequence composed of at least 6 contiguous amino acid residues selected from an amino acid sequence constituting laminin binding site (LBS), or said sequence with one or a plurality of amino acid residue(s) conservatively replaced;

 designing a peptide chain including said determined sequence and a partial sequence linked in tandem to the N-terminal and/or C-terminal of said determined sequence, where the partial sequence is a high basic partial sequence and more than half of amino acid residues constituting the partial sequence composed of 3 or more contiguous amino acid residues are lysine or arginine; and

 synthesizing said designed peptide chain.

13. (Withdrawn, previously presented) The antimicrobial peptide according to claim 2, wherein the sequence composed of at least 6 contiguous amino acid residues is a sequence including an amino acid sequence shown in any one of SEQ ID NOs: 1 - 9.

14. (Withdrawn, previously presented) The antimicrobial peptide according to claim 2, wherein the sequence composed of at least 6 contiguous amino acid residues is an amino acid sequence shown in any one of SEQ ID NOs: 1 - 9.

15. (Cancelled)

16. (previously presented) The antimicrobial peptide of claim 2, wherein at least one amino acid residue is amidated.

17. (previously presented) An antimicrobial agent comprising the antimicrobial peptide of claim 2, and a pharmaceutically acceptable carrier.

18. (Withdrawn, previously presented) An artificially designed polynucleotide that does not occur naturally, comprising a nucleotide sequence encoding the antimicrobial peptide of claim 2, and/or a nucleotide sequence complementary to said sequence.